

Objectives: This study updated Reed's 1999 "Mapping the Literature of Occupational Therapy." An analysis of citation patterns and indexing coverage was undertaken to identify the core literature of occupational therapy and to determine access to that literature.

Methods: Citations from three source journals for the years 2006 through 2008 were studied following the common methodology of the "Mapping the Literature of Allied Health Project." Bradford's Law of Scattering was applied to analyze the productivity of cited journals. A comparative analysis of indexing was conducted across three bibliographic databases.

Results: A total of 364 articles cited 10,425 references. Journals were the most frequently cited format,

accounting for 65.3% of the references, an increase of 4.1% over the 1999 study. Approximately one-third of the journal references cited a cluster of 9 journals, with the *American Journal of Occupational Therapy* dominating the field. An additional 120 journals were identified as moderately important based on times cited. CINAHL provided the most comprehensive indexing of core journals, while MEDLINE provided the best overall coverage.

Conclusions: Occupational therapy is a multidisciplinary field with a strong core identity and an increasingly diverse literature. Indexing has improved overall since 1999, but gaps in the coverage are still evident.

INTRODUCTION

In 1997, the Nursing and Allied Health Resources Section (NAHRS) of the Medical Library Association (MLA) launched the "Mapping the Literature of Allied Health Project." From its inception, the project has employed a common bibliometric methodology, based in part on Bradford's Law of Scattering [1], to analyze or "map" the bibliographic patterns at play in a variety of allied health disciplines, including occupational therapy, the discipline covered by the present study. Barbara F. Schloman, AHIP, the original project editor and author of one early study [2], encapsulated the project's overarching rationale: "Because bibliographic references that appear in journal articles provide a measurable path of information transfer occurring within a field, it is possible to assess quantitatively the characteristics of the literature of that field: the type of literature used, its currency, the core journals, and the extent of dispersion of the journal literature" [3]. To date, the allied health project has given rise to fifteen mapping studies covering a diverse range of allied health disciplines [4]. As of this writing, athletic training [5] and health care management [6] are the two most recent allied health disciplines to be included in the project. The companion project covering nursing-related fields has produced seventeen studies [7].

The present study marks both a continuation of the NAHRS mapping project and a return to its beginnings, revisiting and updating Reed's 1999 study of the literature of occupational therapy [8]. Reed's study itself effectively updated two earlier bibliometric studies that were not part of the NAHRS

Highlights

- This study updates Reed's 1999 study and presents a comparative analysis of the findings.
- The *American Journal of Occupational Therapy* has been a dominant force in the literature for many years but is beginning to give ground to newer journals and journals from outside the United States.
- Nine journals are identified as the most-cited core literature of the field; among these the *Journal of Autism and Developmental Disorders* stands out as an indicator of autism's prominence as a subject of current interest in the literature.
- MEDLINE provides the best overall coverage of the literature. CINAHL provides comprehensive coverage of the nine core journals.

Implications

- Librarians should review database access and subscriptions to highly cited occupational therapy journals.
- Researchers cannot rely on MEDLINE for comprehensive coverage of core titles.
- Practitioners and researchers should consult this study to determine which journals merit close attention.

project, but which will be worth glancing at alongside the current data. Johnson and Leising's 1986 study [9] and Roberts's 1992 study [10], although more limited in scope, employed a bibliometric methodology similar to that of the NAHRS studies. The older



A supplemental appendix is available with the online version of this journal.

studies provided further context for and continuity with the results of the present study, particularly with regard to the ongoing preeminence of the *American Journal of Occupational Therapy* (AJOT).

The importance of Reed's study, and the importance of updating it, are both suggested by the fact that the study continues to inform collection development decisions and related research. As Hull states, Reed's study and other studies in the mapping series "enable a balanced, objective approach when making difficult choices of how to spend limited collection development budgets" [11]. Schroeder's 2008 study [12] incorporates Reed's data and takes the data a step further by addressing the question of full-text electronic access to the literature of occupational therapy, not merely the question of indexing coverage considered by the NAHRS studies. In these instances and many others, the data from Reed's study continue to prove their worth. After a decade, however, just as roadmaps and atlases must be revised to reflect a changing landscape, the time is undoubtedly ripe for a reexamination and fresh presentation of the bibliographic landscape of the literature of occupational therapy. Before proceeding to the details of the current study, however, it is worth taking a broader, definitional, and historical view of the territory: What is occupational therapy and how has it arrived at its current place in allied health?

Webster provides a simple and elegant definition of occupational therapy: "Therapy in which the principal element is some form of creative or productive activity" [13]. The term, however, can conjure up a misleading image of jobs, careers, and vocational guidance rather than a profession that often serves to complement other rehabilitative fields such as physical therapy and speech-language pathology. Occupational therapists, by all indications, spend more time explaining what they do than is the case for their colleagues in related fields. In this vein, Marcil says occupational therapy may be "the least known, most misunderstood, and most overlooked of all the health care professions" [14]. One recent edition of a dictionary of occupational therapy includes an appendix that opens with the following: "What is occupational therapy? Every student and practitioner has been asked that question countless times" [15]. The appendix then presents a compilation of thirty-seven definitions of occupational therapy and nineteen more of specific practice areas in the field. In her 1988 study (a predecessor of her 1999 mapping study), Reed noted that "an important trend in occupational therapy articles is the change from articles written on 'what is occupational therapy?' to those that stress results of treatment" [16].

This recurring need to define and explain the basic parameters of the field is often accompanied by ambivalence or exasperation, but just as often by a sense of professional pride in the core identity of occupational therapy, rooted in a dynamic and vital history that informs and continues to help define present day practice. Although the current study does not examine the frequency of citations down to the

level of particular journal articles, one such reference stood out in the data, namely, the seminal essay by Meyer, "The Philosophy of Occupation Therapy" [17], which was cited a total of ten times by articles included in the study. That present day occupational therapists continue to return to Meyer's 1922 essay is a testament to the depth and power of Meyer's vision and of his eloquence in articulating it. In his critique of the post-Enlightenment tendency to treat the human subject as "so many pounds of flesh and bone figuring as a machine, with an abstract mind or soul added to it" [17], Meyer tapped into a larger cultural and intellectual shift that had perhaps first been heralded by Kierkegaard's attack on Hegel in the mid-nineteenth century [18] and later shaped the philosophical movements of existentialism and phenomenology, as well Frankl's logotherapy [19] and related schools of psychotherapy. In any case, as Marcil puts it, Meyer's vision "became the bedrock upon which the philosophy of occupational therapy was built" [14].

For a succinct summation of other influences, key figures, and landmarks in the history of occupational therapy, the reader may refer to Reed's introduction to her 1999 study [8]. Following the tremendous period of growth beginning in the early 1980s that Reed notes in her introduction, the late 1990s and first few years of the new millennium marked a serious downturn for the profession. As Marcil puts it, due to changes in Medicare and other factors, occupational therapists were being laid off, enrollment in occupational therapy programs "dropped precipitately," and "many programs closed down due to waning enrollments" [14]. Employment in nursing home and home health care settings and enrollment in occupational therapy assistant programs and were particularly hard hit. A shift has since occurred, however, and by all indications the profession is recovering and continuing to thrive.

Two elements in the current resurgence of the field are worth noting. First, the increasing incidence of and research into autism spectrum disorders has increased interest in occupational therapy-based treatment modalities, such as sensory integration and social skills training [20]. The importance of autism as a topic of research in occupational therapy is reflected in the rise of the *Journal of Autism and Developmental Disorders*, a journal that did not appear in Reed's study but which appears as one of the most frequently cited journals in the current study. Second, as is happening everywhere in health care, occupational therapy practice and research has been invigorated over the past few years by the evidence-based health care (EBH) movement [21]. The EBH movement has pushed occupational therapy researchers and practitioners to do more and better research, to address gaps in the occupational therapy knowledge-base, and to strengthen the vital relationship between research and practice. The importance of EBH is reflected in the vision statement for the upcoming 2017 centennial of the American Occupational Therapy Association: "We envision that occupational

therapy is a powerful, widely recognized, science-driven, and evidence-based profession with a globally connected and diverse workforce meeting society's occupational needs" [22].

METHODS

As stated in the introduction, this study follows the common methodology outlined by Schloman in her 1997 project overview [3]. Furthermore, this study is among the first in the NAHRS mapping series to update an earlier study, namely, Reed's "Mapping the Literature of Occupational Therapy," which appeared in 1999 [8]. At the outset of the current study, therefore, one key methodological consideration was the question of how closely to follow certain particulars of Reed's study, such as the choice of source journals and the time span of the citation data. In the interest of continuity and comparability, citation data were drawn from the same source journals that Reed used: the *American Journal of Occupational Therapy* (AJOT); *OTJR: Occupation, Participation & Health* (formerly, the *Occupational Therapy Journal of Research*); and *Occupational Therapy in Health Care* (OTHC). Reed's rationale for choosing these source journals remains sound. They are research oriented and provide good breadth of coverage in the field. As is the case for all the NAHRS mapping studies, however, the choice of source journals is an obvious limiting factor. Undoubtedly other journals are worthy of consideration—for example, the major British, Canadian, and Australian journals—and it would be a worthy endeavor to undertake a second study using data from these or other source journals.

With regard to time span, on the other hand, this study maintains consistency with the series protocol and includes data from a full three-year span (2006–2008), rather than the shorter two-year period (1995–1996) included in Reed's study. As a result, the raw numbers presented in the two studies are not directly comparable, but comparisons of the percentages and overall trends shown in the two studies can still be made.

As in the Reed study, journal references were limited to citations from full-length journal articles. Editorials, book reviews, profiles, association policy statements, and other peripheral documents were excluded. Initially, citation records from AJOT and OTHC were exported from the SCOPUS database [23] and records from OTJR were exported from CINAHL [24]. Both sets of data were checked against a hand count of articles from the printed issues for each of the three journals. Instances of missing, incomplete, or erroneous data were addressed by comparing the print sources or by cross-referencing against other online sources. The data were then imported into an Excel spreadsheet, which was divided into the following columns: document type (journal, book, or other); title of the cited item; year of publication; and source journal/year. The citation records could then be sorted and re-sorted to conduct a variety of quantitative analyses.

Although this report only divides the records into three document types, many document subtypes were identified under the "miscellaneous" category, including government documents, theses and dissertations, association and organization guidelines, test instruments, conference posters and presentations, unpublished manuscripts, and various types of web pages and other Internet-based documents that could not be placed in one of the preceding categories.

As expected, the bulk of the data (65.3%) consisted of references to journals (or, more precisely, journal articles, but this study focuses its analysis at the broader level of journal titles). Following the common methodology of the NAHRS mapping series, the next step was to consolidate journals that have undergone name changes under the most current title. The primary tools employed for this task were the National Library of Medicine's (NLM's) Journals Database [25] and *Ulrich's Periodicals Directory* [26]. In several instances, there were references to older versions of a journal but no references to the journal under its most recent name. In those cases, the journal has been listed in the appendix (online only) under the older name, with an indication of "continued by" the more recent title.

The next step was to arrange the journal references by journal title, ranked in order from most to least cited and then divide the total journal references into three approximately equal zones. This procedure is based on Bradford's Law of Scattering, which postulates that for a given subject area "there are a few very productive periodicals, a larger number of more moderate producers, and a still larger number of constantly diminishing productivity" [1]. Zone 1, the top third, thus identifies the concentrated handful of journals that are repeatedly cited in the literature of occupational therapy and are therefore of highest interest to occupational therapy researchers and practitioners, librarians making collection development decisions, and indexing services catering to the occupational therapy community. Zone 2, the middle third, contains the journals that have been moderately cited in the literature and are therefore of moderate interest to concerned parties, and Zone 3, the bottom third, consists of the "long tail" of lesser-cited journals that can be considered to be of marginal importance to the literature of occupational therapy. The degree of dispersion revealed here may also indicate other factors, such as the relative insularity of a given field (which would be implied by a more concentrated literature) as opposed to a field that possesses a more interdisciplinary character (which a more scattered literature would suggest). It should be noted, too, that the divisions between the zones are somewhat arbitrary. Although it is convenient to focus on the importance of Zone 1 journals, for example, the journals at the top of Zone 2 do not trail far behind in terms of number of times cited.

After establishing the ranked list of journals divided into Bradford's three zones, the next step was to examine the indexing available for journals in Zones 1 and 2. Once again following Reed's example,

Table 1
Cited format types by source journal and total frequency

Cited format type	Source journal total				
	<i>AJOT</i>	<i>OTJR</i>	<i>OTHC</i>	No.	%
Books	1,270	643	477	2,390	22.9%
Journals	4,163	1,387	1,254	6,804	65.3%
Miscellaneous	786	118	327	1,231	11.8%
Total	6,219	2,148	2,058	10,425	100.0%
Average citations/article	29.2	30.7	25.4	28.6	n/a

AJOT = American Journal of Occupational Therapy.

OTJR = Occupation, Participation & Health.

OTHC = Occupational Therapy in Health Care.

the analysis was limited to the three bibliographic databases most likely to be used by occupational therapy researchers and practitioners: MEDLINE [27], CINAHL [24], and PsycINFO [28]. Each Zone 1 and 2 title was checked against the current CINAHL Database Coverage List [29], the PsycINFO Journals Indexed Cover to Cover list [30], and NLM's LocatorPlus [31] for MEDLINE coverage. If complete coverage of a given journal was indicated by one or more of these lists, the percentage of coverage for that journal in the remaining database or databases was calculated by comparing search results.

For each journal, using its international standard serial number (ISSN) to ensure precision, a search of each database was conducted. The database searches were limited to the year 2007, based on the assumption that limiting the search to a year prior to the most recent year included in the study would provide a relatively current snapshot of coverage, while also ensuring that enough time had passed for indexing to be complete. For journals that ceased publication prior to 2007, the search of the 3 databases was limited to the year prior to the final year of publication. In most cases, the search results corroborated what was shown on the coverage lists, but occasionally the search results told a different story—and in those cases, the percentage of coverage was calculated based on what the actual results indicated. Following the protocol of other mapping studies, an indexing scale from 0 for no coverage to 5 for complete coverage was assigned to simplify indexing comparisons. Note that "complete" coverage is defined in the protocol as 95%–100% to allow for the vagaries and discrepancies that can arise when analyzing coverage data for a given journal.

Finally, the results of the present study were compared with that of the 1999 study. The overlap of Zone 1 and 2 journals in the two studies was tallied, noting which journals dropped out and which new journals appeared as well as which journals were common to both studies. For the overlapping journals, differences in the indexing coverage reported by Reed, compared with the current results, were noted.

RESULTS

A total of 10,425 references was cited by 364 articles that appeared in the 3 source journals during the

period 2006–2008, for an average of 28.6 citations per article, a slight rise over the average of 27.3 reported in the 1999 study. As shown in Table 1, *AJOT* was by far the most productive of the 3 source journals in terms of raw numbers, with 6,219 references cited by 213 articles, which translates to an average of 29.2 citations per article. The other 2 source journals produced approximately 2,000 citations each, but in terms of citations per article, the research-focused *OTJR* led the trio with an average of 30.7 and *OTHC* trailed with an average of 25.4. These figures varied slightly but not remarkably from Reed's findings in the earlier study.

Table 1 also shows that 65.3% of the references cited journal articles. That marks an increase of 4.1% over the 1999 data, which is perhaps not surprising given the open source journal movement and the ease of online access to full-text journal articles that researchers increasingly enjoy. Conversely, and also not surprisingly, books appear to be going out of vogue, accounting for 22.9% of the references in the current study, versus the 26.1% reported by Reed. Consistent with the increase in journal references, the "Miscellaneous" category dropped from 12.7% to 11.8%.

An examination of the publication date range of the references, as shown in Table 2, reveals that the highest proportion of journal and miscellaneous references were published during the current decade (2000–2008), whereas a greater proportion of cited books were published during the preceding decade (1990–1999). Overall, 46.2% of all references were published during the 9 years that make up the 2000–2008 period. The most current publication date range reported by Reed was a 7-year period spanning 1990–1996, which accounted for 35% of all references. References with publication dates spanning the most recent 7 years in the present study amounted to 31.8% of the total (this was calculated for the sake of comparison with the 1999 study and is not included in Table 2). The 3.2% decline in the currency of citations might at first seem puzzling, but perhaps it makes sense in light of increasing online access to older "backfile" material.

The application of Bradford's Law of Scattering is represented in Table 3. Approximately one-third of the 6,804 journal references are concentrated in a set of 9 core journals labeled Zone 1 here. This set represents only 0.7% of all 1,299 journals cited in the study. The

Table 2
Cited format types by publication year periods

Publication year	Books		Journals		Miscellaneous		Total	
	No.	%	No.	%	No.	%	No.	%
2000–2008	836	35.0%	3,217	47.3%	759	61.7%	4,812	46.2%
1990–1999	1,040	43.5%	2,580	37.9%	349	28.4%	3,969	38.1%
1980–1989	273	11.4%	695	10.2%	79	6.4%	1,047	10.0%
1970–1979	132	5.5%	170	2.5%	20	1.6%	322	3.1%
Pre-1970	109	4.6%	142	2.1%	24	1.9%	275	2.6%
Total	2,390	100.0%	6,804	100.0%	1,231	100.0%	10,425	100.0%

second third of the total journal references, labeled Zone 2, cite 120 journals, representing 9.2% of the total. The remaining third of journal references (Zone 3) cite a relatively vast and diverse population of 1,170 journals, or 90.1% of the total. How does this compare to Reed's findings? Once again, due to time frame differences, the whole numbers reported in the 2 studies are not directly comparable, but in this case, the percentages tell the story. The cited-journal percentages of Reed's 3 zones break out as follows: Zone 1: 0.4%, Zone 2: 15.1%, and Zone 3: 84.5%. The higher percentage of journals in Zone 3 of the current study would indicate a trend toward an increasingly scattered literature, with a greater concentration of citations to journals in the moderate middle zone and a slight increase in Zone 1 scattering.

Table 4 provides a listing of journal titles in Zone 1, along with a ranking of 0–5 to indicate the indexing coverage for each journal in 3 bibliographic databases: MEDLINE, CINAHL, and PsycINFO. See the appendix (online only) for an expanded version of Table 4 that includes both Zone 1 and 2 journals. The first thing to note here is the dominance of the *AJOT*. Articles in the source journals cited *AJOT* 1,235 times over the 3-year period covered by the study, more than 6 times the number of references to the next most-cited journal, the *Archives of Physical Medicine and Rehabilitation*, and a full 18% of all journal citations. Compared with Reed's results, in which references to *AJOT* accounted for 28% of the total journal citations, the journal's place at the top of the list has actually slipped somewhat since 1999. All the same, it remains an impressive figure.

Another noteworthy result displayed in Table 4 is the appearance of the *Journal of Autism and Developmental Disorders and Occupational Therapy International* in Zone 1. Neither of these journals appeared in either Zone 1 or Zone 2 in Reed's study. Likewise, two of the

top Zone 2 journals, *Scandinavian Journal of Occupational Therapy* and *OT Practice*, are new to the current study. Of these four journals, the three with an occupational therapy focus began publishing only a year or two prior to the period covered by Reed's study. The degree to which they have emerged in the literature during the intervening decade is impressive and perhaps another positive sign of the vitality and growth of the field. The emergence in Zone 1 of a journal that focuses on autism is indicative of an increasing awareness of autism spectrum disorders that has occurred over the past decade.

Overall, of the 129 Zone 1 and 2 journals, 67 of them are new to the current study. Of the 62 journals that appear in Zones 1 and 2 in both studies, the current study shows an overall net increase of indexing coverage as follows: MEDLINE now indexes 9 additional journals; CINAHL has added coverage for 4 journals but dropped coverage for 5 journals; and PsycINFO has added coverage for 8 of the 62 journals. Without differentiating between selective and full indexing, that amounts to a 10.9% net increase of indexing coverage across the 3 databases.

In the present study, CINAHL clearly provides the most comprehensive coverage of Zone 1 journals, providing full coverage of all nine journals. MEDLINE and PsycINFO both trail by a wide margin in Zone 1. CINAHL continues to perform well among the high-ranking Zone 2 journals, but overall MEDLINE provides more coverage, with PsycINFO in third place. In terms of unique coverage, CINAHL leads as the sole database providing coverage of eight journals in Zones 1 and 2, MEDLINE provides unique coverage of five journals, and PsycINFO provides unique coverage of three journals. Only five journals in Zones 1 and 2 are not covered by any of the three databases. Of these, three are educational journals (two of which are indexed in ERIC), one is an occupational therapy journal that was only published for four years and ceased in 1993, and one is a biweekly occupational therapy journal that could be viewed as more of a newsletter than a journal.

DISCUSSION

The most heavily referenced journal in the field of occupational therapy is clearly the *AJOT*. The dominance that *AJOT* exerts in the current study is corroborated not only by Reed's 1999 study, but also by the two earlier citation studies in 1992 [10] and

Table 3
Distribution by zone of cited journals and references*

Zones	Cited journals		Cited references		Cumulative total
	No.	%	No.	%	
Zone 1	9	0.7%	2,292	33.7%	2,292
Zone 2	120	9.2%	2,294	33.7%	4,586
Zone 3	1,170	90.1%	2,218	32.6%	6,804
Total	1,299	100.0%	6,804	100.0%	

* Based on Bradford's Law of Scattering, each zone contains approximately one-third of the total citations to journals, arranged from most to least cited journal.

Table 4
Zone 1* titles, numbers of cited references, percent of indexing

Cited journal	Coverage†			
	Total citations	MEDLINE	CINAHL	PsycINFO
Zone 1				
1. Am J Occup Ther	1,235	4	5	3
2. Arch Phys Med Rehabil	201	5	5	0
3. OTJR: Occup, Participation Health	199	0	5	5
4. Can J Occup Ther	197	3	5	2
5. Br J Occup Ther	143	0	5	2
6. Occup Ther Int	86	5	5	0
7. Aust Occup Ther J	82	0	5	3
8. Phys Occup Ther Pediatr	75	5	5	0
9. J Autism Dev Disord	74	5	5	5
Zone 1 total	2,292	27	45	20

* Based on Bradford's Law of Scattering, Zone 1 represents the upper third of total citations to journals, arranged from most to least cited. See the appendix (online only) for an expanded version of this table, including Zone 2 journals (the middle third of total citations).

† Coverage scale indicates the percentage of articles indexed in 2007 or most recent year of publication: 5 (95%–100%); 4 (75%–94%); 3 (50%–74%); 2 (25%–49%); 1 (1%–24%); 0 (<1%).

1986 [9]. Two more recent articles also shine a spotlight on *AJOT*. Rodger, McKenna, and Brown's 2007 survey-based study places *AJOT* at the top in terms of a number of quality indicators rated by authors of occupational therapy articles [32]. Holguin's 2009 analysis of the performance of occupational therapy journals in *Journal Citation Reports*, although sounding an alarm about *AJOT*'s disappointing impact factor rating, acknowledges that it "consistently maintained an extremely high rank pertaining to the total number of citations it received and the volume of its publications" [33].

At the same time, this study, when compared with Reed's, reveals that *AJOT*'s dominance may be slipping somewhat. The emergence and maturation of a new crop of journals with an occupational therapy focus, along with expanded indexing and online access, has no doubt contributed to a healthy erosion of *AJOT*'s dominance. Zone 1, which was occupied in Reed's study by only three journals, has now expanded to include the *Canadian Journal of Occupational Therapy*, *British Journal of Occupational Therapy*, *Occupational Therapy International*, *Australian Occupational Therapy Journal*, and *Physical and Occupational Therapy in Pediatrics*, as well as the *Journal of Autism and Developmental Disorders*. The downside of this trend, as suggested by Holguin's study [33], is that *AJOT*'s declining impact factor could have negative repercussions for the influence of occupational therapy research in the wider arena of health care literature as a whole. A weak impact factor may cause some researchers outside of the occupational therapy sphere to overlook *AJOT* and miss its important contributions to the literature of allied health.

Although MEDLINE indexing has improved for a number of Zone 2 journals, Reed's call for improved indexing of journals specific to occupational therapy has not been met. Of the nine journals in Zone 1, three of them are not indexed at all by MEDLINE and two are indexed only selectively. Likewise, two of the top-three Zone 2 occupational therapy journals are not

indexed by MEDLINE. As Reed's conclusion points out, practitioners often have to rely on MEDLINE for conducting literature searches; it is therefore important for MEDLINE to include coverage of these core journals in what is a prominent field of allied health.

CONCLUSION

The core identity of occupational therapy remains strong, rooted in a lively sense of its history and foundational philosophy, with the *AJOT* continuing to function as a leading force for contemporary research and practice in the field. Much has changed in the decade since Reed's study, however, and plenty of new growth is evident. *AJOT* is beginning to give up a share of its leadership position to newer journals, and increasing globalization and interdisciplinary dynamics (particularly with regard to a growing interest in autism spectrum disorders) are evident. Coverage of occupational therapy journal literature by major health sciences, allied health sciences, and psychological databases has also generally improved since Reed's study. CINAHL's coverage of the core journals in the field is strong, but the fact that it has ceased coverage of several Zone 2 journals is cause for concern. MEDLINE's improved coverage of Zone 2 journals is also a positive sign, but its neglect of several core occupational therapy journals represents a serious gap in coverage.

This study is part of the second generation of what has been a very successful project. Updating Reed's 1999 study provides a fresh snapshot, a redrawn map, of the literature of occupational therapy. The author hopes that practitioners, researchers, and librarians will find this study as useful as the original—perhaps in some ways even more useful for having the advantage of comparison with the earlier study. Occupational therapists and researchers can now add this study to the array of sources they use to identify important journals in the field and to inform their current awareness and article submission decisions. Librarians who serve occupational therapy

programs can use this study as an updated tool for making collection development and journal subscription decisions.

This study may also shed light on a larger cultural shift. "On demand" and "just in time" access to what was once obscure or difficult to obtain is increasingly the norm; greater value is being placed on interdisciplinary collaboration and connections between disparate realms of knowledge; and there is an observable increase of scattering that touches almost every aspect of daily life. The "long tail" phenomenon that has been identified in the realm of e-commerce [34] is more gradually, but just as surely, becoming evident in academic discourse. The increased scattering exhibited in Zone 3 of the present study compared with a decade ago is one example. The developing open source journal movement and other grassroots efforts in scholarly publishing, not to mention the appearance of Google Scholar and related projects, may further widen the third zone. It will be interesting to see what the literature of occupational therapy looks like in another ten years.

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AUTHOR'S AFFILIATION

Jonathan Potter, MLS, MA, jpotter@ewu.edu, Health Sciences Librarian, Riverpoint Campus Library, Eastern Washington University, P.O. Box 1495, Spokane, WA 99210-1495

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